# - MCLENNAN COMMUNITY COLLEGE 

1400 COLLEGE DR., WACO, TEXAS 76708

# COURSE SYLLABUS <br> AND <br> INSTRUCTOR PLAN 

COLLEGE ALGEBRA
MATH - 1314-006

## PROFESSOR CINDY BURNS

NOTE: This is a 16 -week course.
NOTE: This is a Face-to-Face course.

## Course Description:

1314 College Algebra is an In-depth study and application of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability and conics may be included. Problem solving with algebraic applications relevant to today's world is emphasized. Graphing Calculator Required

Semester Hours 3 (3 Lecture)

## Prerequisites and/or Corequisites:

TSI Math complete or MATH 0311.

- This class is for students who are:
- dedicated to attending class on campus,
- comfortable working with a computer,
- in possession of a computer with high speed internet,
- self-motivated to get their work done, and
- able to seek support when needed.


## Course Notes and Instructor Recommendations:

- Our class is scheduled for Monday \& Wednesday 9:35-11:00 in the Math building. Students will meet on campus for all instruction and the final exam. Everyone will need a graphing calculator. (If able to borrow one, do that or buy used. See note in Required Text \& Materials.)
- The Syllabus Quiz will need a grade of 100 before any assignments will open.
- The Classwork (CW) used by my online class is available for students who find it necessary to miss our on-campus class or want more information. CW is not part of course grading. It consists of videos, pages of the e-text, and practice problems similar to a classroom experience.
- Homework is located online and is due every week. No late work!
- Practice quizzes are optional but available for more practice before taking a high-stakes test.
- All tests will be proctored by a proctoring service which means everyone will be videoed while taking the tests.
- A human is not watching, but videos may be viewed by instructor to verify appropriate testing behavior. Students will need a web camera of some kind and a computer that is NOT a Chromebook or a mobile device. PREPARE NOW for this!
- Course is located inside Brightspace (BS).
(2) Pearson's MyLabMath (MLM) will be the delivery system for homework, quizzes, tests, and online instruction. The fee for MLM was included with tuition and no code of any sort is needed. If a physical textbook is desired, I recommend buying an older edition online via a $3^{\text {rd }}$ party seller or Pearson offers a $\$ 50$ option.

Other instructor recommendations:
> Manage time well-Create a schedule including all activities to determine best time to do math.
> Understand the requirements-PRINT THE SYLLABUS and consult often. Due dates are used to keep
students moving at a good pace.
$>$ Buy a notebook—a 3 ring binder with a set of dividers-A lot of paper is used in the class.
$>$ Do the coursework-Work regularly on assignments—several times a week. All homework sections can be done to a score of 100 with repetition and corrections. Assignments can be reviewed by clicking MLM Gradebook in BS. No extra credit requests. Experts suggest spending 9 hours a week on course!!
$>$ Read the announcements in Brightspace. Set notifications in BS.
$>$ Get help early!!! Email me or call 254-299-8878 for free tutoring at MCC. Tutor by Zoom 2542998500.
$>$ Use the resources MCC provides—Get your money's worth!!! A complete list of support from MCC: https://www.mclennan.edu/campus-resource-guide/
$>$ Partake in the college experience—Many students make life-long friends while going to college. The experiences and people encountered will help set the stage of a student's future career and life.

## Instructor Information:

Instructor Name:
MCC Email:
Office Phone:
Office Location:
Office Location: Math bldg., \#219
Office Visit/Teacher Conference Hours:
On campus: Monday and Wednesday: 9:15-9:30 and 12:45-3:00
Online: Emails answered frequently Monday-Friday. Emails preferred—do not use BS Instant Message. Zoom: By appointment requested by student.

Other Instructor Information: Replies to emails will be within 24 hours, but not on the weekend AND if the email contains our class number (1314.006) and the student's name.

## Required Text \& Materials:

> Title: College Algebra with Modeling \& Visualization Edition: $6^{\text {th }}$

Author: Gary Rockwold
Publisher: Pearson

ISBN: NA—We use MyLabMath from Pearson for online work. Cost is included in student's tuition statement. Nothing needs to be purchased from the bookstore. See COURSE NOTES if want a hard- copy textbook.
> Materials:

- Desktop or laptop computer-NOT a Chromebook or mobile device—with attachable webcam or a built-in camera.
- High speed internet. (MCC has computers and internet available to students in the library.)
- 3 ring binder with dividers and notebook paper. This is the preferred method for writing notes and keeping all papers organized.
- Graphing calculator. Recommended: Texas Instruments 84 or free version on www.Desmos.com


## MCC Bookstore Website: http://www.mclennan.edu/bookstore/

## Methods of Teaching and Learning:

Students will spend considerable time in and out of the classroom:

- watching and listening to instruction,
- writing notes,
- practicing new skills,
- doing homework, quizzes, participation activities, and tests, and
- seeking help if needed.

Learning a new skill takes patience and practice... and lots of both!!

## Course Objectives and/or Competencies:

Upon successful completion of the course, students will:

1. Demonstrate and apply knowledge of properties of functions, including domain and range, operations, compositions, and inverses.
2. Recognize and apply polynomial, rational, radical, exponential and logarithmic functions and solve related equation.
3. Apply graphing techniques.
4. Evaluate all roots of higher degree polynomial and rational functions.
5. Recognize, solve and apply systems of linear equations using matrices

## Course Attendance/Participation Guidelines:

Regular attendance is required by the college and is beneficial to the learning process. Online class attendance is very flexible and therefore needs to be planned. Schedule time in the week, preferably every day, to work on math. Attendance will be recorded in Brightspace.
> Attendance is based on homework activity and test completion. Students will be marked Absent if all or most assignments are past due when attendance is checked on Monday morning. Students will be marked Tardy if less than half of the work is past due. There are 28 attendance checks. Each tardy will equal one-half absence. Students with 7 absences before Oct. 24 will be withdrawn. Students may still be withdrawn by the instructor after 10-24 if number of absences reach 7.
> Students must do the Syllabus Quiz and one week's work before MCC's Census date.

If a student is not in attendance in accordance with the policies/guidelines of the class as outlined in the course syllabus as of the course census date, faculty are required to drop students from their class roster prior to certifying the respective class roster. A student's financial aid will be re-evaluated accordingly and the student will only receive funding for those courses attended as of the course census date, Sep. 6.

Before the $60 \%$ point of the semester, a student who is absent for $25 \%$ or more of a face-to-face or blended course or who misses $25 \%$ or more of assigned work for an online course will be withdrawn from the course with a grade of $W$. A student may also request to be withdrawn with a grade of $W$ before the $60 \%$ point of the semester. After the $60 \%$ point of the semester, the student may request to be withdrawn if the student is passing, or be assigned the final grade earned at the end of the semester after grades have been updated to reflect missing work.
> Student Requested withdrawals must be requested via student email before 4:30 on Oct. 24.

## Course Outline or Schedule:

This schedule is subject to change and if changes are made, then students will be notified by an announcement in Brightspace (BS).
> Turn on email notifications for BS announcements.

- Click your name at the top of our BS course page and then click Notifications. Check email next to announcements.

| WEEK | BEGINS | HOMEWORK (HW) SECTIONS COVERED <br> Assignments are due the following Sunday at 11:59 p.m. | DUE DATES |
| :---: | :---: | :---: | :---: |
| 1 | Aug. 21 | Syllabus QUIZ <br> Calculator Training Unit <br> 1.3 Functions and their Representations <br> 1.4 Types of Functions | SQ and HW due Aug. 27 |
| 2 | Aug. 28 | 2.1 Equations of Lines <br> 2.2 Linear Equations <br> 2.3 Linear Inequalities | HW due Sep. 3 |
| 3 | Sep. 4 | LABOR DAY -We will meet only Wednesday. 2.4 Piecewise Functions; Greatest Integer Function | CENSUS DATE=Sep. 6 HW due Sep. 10 |
| 4 | Sep. 11 | 2.5 Absolute Value Functions <br> Practice Test 1 QUIZ (optional) <br> TEST 1-Linear Functions, Equations, and Graphs | HW \& T1 due Sep. 17 |
| 5 | Sep. 18 | 3.1 Quadratic Functions and Models 3.2 Quadratic Equations and Problem Solving pt. 1 | HW due Sep. 24 |
| 6 | Sep. 25 | 3.2 Quadratic Equations and Problem Solving pt. 2 3.3 Complex Numbers | HW due Oct. 1 |
| 7 | Oct. 2 | 3.4 Quadratic Inequalities <br> 3.5 Transformations of Graphs <br> Practice Test 2 QUIZ (optional) <br> TEST 2-Quadratic Functions, Equations, \& Graphs | HW \& T2 due Oct. 8 |
| 8 | Oct. 9 | 4.1 Nonlinear Functions and their Graphs 4.2 Polynomial Functions and Models | HW due Oct. 15 |
| 9 | Oct. 16 | 4.3 Division of Polynomials <br> 4.4 Real Zeros of Polynomials <br> 4.5 Fundamental Theorem of Algebra | HW and T3 due Oct. 22 |
| 10 | Oct. 23 | 4.6 Rational Functions and Models <br> 4.7 More Equations \& Inequalities <br> 4.8 Radical equations and Power Functions | HW due Oct. 29 |
| 11 | Oct. 30 | Practice Test 3 QUIZ (optional) <br> TEST 3-Polynomial, Rational, \& Radical Functions <br> 5.1 Combining Functions <br> 5.2 Inverse Functions | HW \& T3 due Nov. 5 |
| 12 | Nov. 6 | 5.3 Exponential Functions and Models <br> 5.4 Logarithmic Functions and Models | HW due Nov. 12 |
| 13 | Nov. 13 | 5.5 Properties of Logarithms <br> 5.6_Exponential and Logarithmic Equations <br> Practice Test 4 QUIZ (optional) <br> TEST 4-Exponential \& Logarithmic Functions | HW \& T4 due Nov. 19 $\square$ <br> $+\begin{aligned} & +7 \\ & \times \rightarrow-7\end{aligned}$ |
| 14 | Nov. 20 | 6.1 Functions and Systems of Equations in Two Variables 6.3 Systems of Equations in Three Variables HAPPY THANKSGIVING! | HW due Nov. 26 |


| 15 | Nov. 27 | 6.4 Using Matrices to Solve Systems of Equations <br> 6.5 Properties and Applications of Matrices <br> Practice Test 5 QUIZ (optional) <br> TEST 5—Solving Systems of Equations with Matrices | HW \& T5 due Dec. 3 |
| :---: | :--- | :--- | :--- |
| 16 | Dec.4 | FINAL EXAM—Cumulative assessment (No class on Monday.) | FINAL Dec. $\mathbf{6}$ @ 9:35 |

## Course Grading Information:

Students will receive a letter grade of either $A, B, C, D$ or $F$ based on averages below:

$$
A=90 \%+\quad B=80-89 \% \quad C=70-79 \% \quad D=60-69 \% \quad F=\text { below } 60 \%
$$

Grading in this course will be based according to the following percentages.
Homework: 20\% Participation: 10\% Tests (5): 50\% Final Exam: 20\%

Student's GRADEBOOK is in Brightspace—Go to Content and click on MyLab Math Gradebook.

## Homework:

Homework problems may be found by clicking the All Assignments button in Brightspace (BS)/Content.

- Homework assignments are due the following Sunday as listed in the Course Schedule, p. 8.
- Each missed problem can be re-done until it is correct so it is possible to score 100.
- Due dates are firm. No extensions on homework due dates but students are still responsible for learning the concepts and will need to find other ways to practice the missed work.


## Participation:

Activities may be found in BS Discussions or Assignments. Grades will be recorded in MLM Gradebook.

- There will be one short interactive type activity most weeks used to extend a student's knowledge of available resources and math concepts.
- Work will be assigned on Monday morning and due Thursday night before midnight.
- No late assignments accepted and no make-ups.
- Each activity will be worth 10 points and the maximum semester score is 100 .
- This is an "easy A" type of project that involves very little time and is not math intensive.

| PARTICIPATION |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A variety of quick activities will extend a student's understanding of math concepts and/or college life. <br> Activities will be found in Brightspace (BS) under Discussions or Assignments. Icons will be used with the description below and also as a reminder on Course Schedule. <br> For Discussions <br> For Assignments |  |  |  |  |  |  |  |
| WEEK | ICON | DESCRIPTION | DUE | WEEK | ICON | DESCRIPTION | DUE |
| 1 | $\%$ | Introduction to classmates | 8/24 | 10 | $\$$ | Test 2 Debrief | 10/26 |
| 2 | + | Notebook organization | 8/31 | 12 | + + | Khanacademy.org | 11/9 |
| 5 | 8 | MCC Services | 9/21 | 13 | + + | Line Gem Game | 11/16 |
| 6 | $\pm \times$ | Youtube video | 9/28 | 15 | \& | Self-assess | 11/30 |


| 9 | + | How to use Ask My Instructor button | $\begin{aligned} & 10 / 1 \\ & 9 \end{aligned}$ | 16 | 鲉 | Attendance = 1/2 pt. per "Present" | 12/4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## Tests:

Tests may be found by clicking the All Assignments button in Brightspace/Content.

- Tests have an $\mathbf{8 0}$-minute time limit which is the same amount of time as
- A graphing calculator may be used. If a phone is used, it will be considered cheating!
- Two attempts are given for tests unless taken after the due date. A grade of 0 (zero) will be entered if first attempt of test is not done by due date.
- Notes may be used.
- ALL TESTS ARE PROCTORED. After opening the test, follow directions and Respondus Monitor will check that the computer's camera is working correctly. Students will need a school I.D. or a driver's license. Everyone is videoed while taking the test and the video will check for improper behavior during a test. If someone is looking extremely left or right then it looks like another computer monitor is being observed. Do not leave the area while taking the test. If anyone encounters problems with the monitoring service, click https://web.respondus.com/studenthelp/ for support and/or a live chat option. May also call MCC's IT team for help. 254-299-8077
- The tests have due dates to keep everyone moving at a good pace through the class. If a test is not done by the due date, then the student will lose one attempt.


## Final Exam:

A comprehensive Final will be taken in person in class at the time posted on Course Schedule.

- The Final Exam will have a two-hour limit and there is only one chance to take it.
- A non-phone calculator may be used. If a phone is used, it is considered cheating.
- Notes may be used.
- the final will be available if all tests have been taken.
- No one will be able to pass this course without taking the final exam.
- Final Exam grade may replace a lower test grade if needed.


## Late Work and Make Up Work Policies:

* Late work:
> Homework will close each Sunday at 11:59 p.m. No late assignments accepted
> Participation Activities are due on Thursday nights and will not be available for make-up.
> Tests may be taken late, but the opportunity to take a test twice is eliminated.
$>$ All assignments except the final will close permanently on Dec.3.
* Make-up Work: ALL OF THE WORK IN THIS CLASS MUST BE DONE ON TIME. NO MAKE-UP WORK ALLOWED. If a serious situation affects a student's progress, the student needs to share that information and documentation of proof with the instructor so options may be discussed.


## Student Behavioral Expectations or Conduct Policy:

* Students are expected to:
- attend class on a regular basis, arrive early, and participate in the learning process.
- treat other humans with respect and fairness.
- use resources provided by the instructor and Pearson or other online resources.
- display integrity while taking tests.
- Cheating is easy in an online math class. I encourage use of online help while working on homework BUT DO NOT USE PHOTOMATH OR ANY OTHER TYPE OF WEBSITE DURING A TEST! DON'T CHEAT YOURSELF OF AN EDUCATION!
- If a student is found to be doing anything that is unethical, then the student will be reported for suspicious test-taking behavior to the appropriate MCC authorities and the grade for that assignment will become zero.
- If a second incident of cheating occurs, the student will receive an $F$ for the class.

Click Here for the MCC Attendance/Absences Policy (https://www.mclennan.edu/highlander-guide/policies.html)
Click on the link above for the college policies on attendance and absences. Your instructor may have additional guidelines specific to this course.

